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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/492,755	01/27/2000	Zeno Zuffa	33126/GM/ch	1334

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07/25/2002

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EXAMINER

LUK, EMMANUEL S

ART UNIT

PAPER NUMBER

1722

7

DATE MAILED: 07/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-7

Office Action Summary

Application No.

09/492,755

Applicant(s)

ZUFFA, ZENO

Examiner

Emmanuel S. Luk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Objections

1. Claims 13-15 are objected to because of the following informalities: The claims have the misspelled term "tubolar" rather than "tubular" that the other claims are spelled. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alieria in view of Lachner et al.

Alieria teaches a cylindrical jacket (30) provided on a male mold (1) and supported on a rotating carousel structure (35), a sleeve (5) and tubular stem (6) guided on the jacket having a lower annular segment, a plunger guided in the jacket, elastic

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means for urging the plunger in a raised molding position, a chamber connected to the interspace (8) and tube (7), the chamber connected to the insides of the tube by means of openings (12, 13) formed by tubular tang (4), a plate (3; pan) screwed into the vertical sleeve by means of a tubular tang of the plate, and forming with the stem, the chamber and heretically entered with the wider portion (9) of the sleeve. The upper end of the tube having a plug (15) hermetically accommodated in the sleeve, while radial opening (21, 22) in the sleeve are connected respectively to openings (16, 17) in plug by annular grooves (23, 24) that allows for the delivery and return of a coolant liquid. A bush (25; element) through connectors is hermetically superimposed on the sleeve and two grooves which are connected for the delivery and return of the coolant liquid and having a spring (67) between the bush and structure of the carousel (Fig. 1). Compressed air is used to extract the caps from the plunger (3, 9) through an outlet (77) that runs from a channel (76) into a hole (78) that is connected to a source of pressurized air (Col. 6, lines 39-48).

Altera fails to teach ports, a slender tube located inside the tube connected to the ports, holes and return couplings for supplying compressed air to the slender tube.

Lachner teaches a jacket (5) having a tubular channel and cylindrical interspace (22a, 22b) providing coolant flow, while a slender tube (11; blowing tube) provides pressurized air flow towards the ports (15) in the lower portion (6, 6a) of the mold. Altera already utilizes pressurized air for releasing the materials from the plunger. However, Lachner teaches the port located at the front of the lower portion of the mold and connected via tube that is located within a larger tube (Fig. 1). Thus, one skilled in

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the art would recognize the similarities between the structures of molding, use of pressurized air and coolant channels.

It would have been obvious to one of ordinary skill in the art to modify Alieri with the substitution of the gas ejection with a slender tube and ports in the lower portion as taught by Lachner et al because it prevents the cooling agent from reaching the tip, which results the outside of the article cools quicker than the inside of the article at that region, a skin is formed on the outside of the article but the thermoplastic material tends to shrink on further cooling, thus, once the skin has formed there is a tendency for air to penetrate from the blowing channel to the outside of the article so that the article separates from the punch (Col. 3, lines 42-53).

5. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alieri in view of Lachner et al.

Alieri teaches a cylindrical jacket (30) provided on a male mold (1) and supported on a rotating carousel structure (35), a sleeve (5) and tubular stem (6) guided on the jacket having a lower annular segment, a plunger guided in the jacket, elastic means for urging the plunger in a raised molding position, a chamber connected to the interspace (8) and tube (7), the chamber connected to the insides of the tube by means of openings (12, 13) formed by tubular tang (4), a plate (3; pan) screwed into the vertical sleeve by means of a tubular tang of the plate, and forming with the stem, the chamber and hertically entered with the wider portion (9) of the sleeve. The upper end of the tube having a plug (15) hermetically accommodated in the sleeve, while radial opening

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(21, 22) in the sleeve are connected respectively to openings (16, 17) in plug by annular grooves (23, 24) that allows for the delivery and return of a coolant liquid. A bush (25; element) through connectors is hermetically superimposed on the sleeve and two grooves which are connected for the delivery and return of the coolant liquid and having a spring (67) between the bush and structure of the carousel (Fig. 1). Compressed air is used to extract the caps from the plunger (3, 9) through an outlet (77) that runs from a channel (76) into a hole (78) that is connected to a source of pressurized air (Col. 6, lines 39-48). Alieri also teaches the tubular stem (6) that surrounds the tube (7) having a body (69) at the upper portion of the stem that accommodates a seat formed by the bush (25).

Alieri fails to teach ports, a slender tube located inside the tube connected to the ports, holes and return couplings for supplying compressed air to the slender tube.

Lachner teaches a jacket (5) having a tubular channel and cylindrical interspace (22a, 22b) providing coolant flow, while a slender tube (11; blowing tube) provides pressurized air flow towards the ports (15) in the lower portion (6, 6a) of the mold. Alieri already utilizes pressurized air for releasing the materials from the plunger. However, Lachner teaches the port located at the front of the lower portion of the mold and connected via tube that is located within a larger tube (Fig. 1). Thus, one skilled in the art would recognize the similarities between the structures of molding, use of pressurized air and coolant channels.

It would have been obvious to one of ordinary skill in the art to modify Alieri with the substitution of the gas ejection with a slender tube and ports in the lower portion as

taught by Lachner et al because it prevents the cooling agent from reaching the tip, which results the outside of the article cools quicker than the inside of the article at that region, a skin is formed on the outside of the article but the thermoplastic material tends to shrink on further cooling, thus, once the skin has formed there is a tendency for air to penetrate from the blowing channel to the outside of the article so that the article separates from the punch (Col. 3, lines 42-53).

Response to Arguments

6. Applicant's arguments filed 6/6/02 have been fully considered but they are not persuasive. The applicants have argued that the prior art used in the rejection for claims 1-5 would not have been obvious to one of ordinary skill in the art. Primarily, that Alieria and Lechner deal with compression molding and not injection molding as stated by the applicant. However, compression molding and injection molding are known to one of ordinary skill in the molding arts, the structure utilized in compression molding can be used in injection molding and vice versa. Especially since injection molding often press the two mold surfaces together prior to injection. Therefore, it would have been obvious to one of ordinary skill in the art to modify Alieria for injection molding.

In regards to claims 13-15, the applicant argues that Alieria and Lechner do not teach a tip that is rendered motionless with the connection of the supply of air. However, the claimed structure does not provide any such that the tip would remain motionless as suggested by the applicant. In fact, Alieria teaches a body that is coupled to the upper portion of the tubular stem and which the body is accommodated a seat

coaxial to the tubular stem. This structure conforms to the claimed apparatus and thus suggests the function and movement of the forming punch.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (703) 305-1558. The examiner can normally be reached on Mondays through Thursdays from 6:30 AM to 4:00 PM and alternate Fridays from 6:30 AM to 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jan H. Silbaugh can be reached on (703)308-3829. The Rightfax phone numbers for the organization where this application or proceeding is assigned are (703)

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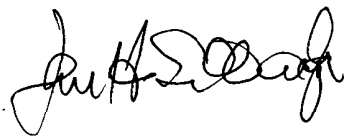
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872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

E. L.
July 22, 2002


JAN H. SILBAUGH
SUPERVISORY PATENT EXAMINER
ART UNIT 1722

07/25/02